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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,598	07/13/2004	Donald L Rymer	AD6856USPCT	9545

7590 03/01/2006

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EXAMINER	
CHEUNG, WILLIAM K	

ART UNIT	PAPER NUMBER
1713	

DATE MAILED: 03/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/501,598	RYMER ET AL.	
	Examiner	Art Unit	
	William K. Cheung	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 December 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claim 1 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 21 of copending Application No. 10/501,491. The difference between the subject matter of present

Claim 1 and Claim 21 of the copending application is extrusion temperature and PVB sheet's glass transition temperature, T_g. A comparison is shown in the following table.

	Copending Application	This Application
Extruding Temperature °C	225 - 245	175 - 225
T_g °C	35 - 60	> 32

As one can see, the copending ranges overlap the instantly claimed ones. It has been consistently held that even a slight overlap in range establishes a *prima facie* case of obviousness. *In re Woodruff,* 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990) or *Titanium Metals Corp. of America v. Banner,* 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

3. Claim 14 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/501,491. The difference between the subject matter of present claim 14 and claim 1 of the copending application is the plasticizer usage. A comparison is shown in the following table.

	Copending Application	This Application
Plasticizer amount	< 30 pph	30 – 50 pph

As one can see, the copending ranges overlap the instantly claimed ones. It has been consistently held that even a slight overlap in range establishes a *prima facie* case

of obviousness. *In re Woodruff,* 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990) or *Titanium Metals Corp. of America v. Banner,* 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

4. Claim 14 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/501,493. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instantly claimed plasticized PVB composition is seen to have the same components as identified in the claim 1 of the copending application. The claim 1 of the copending application cites a small laminate article comprising a plasticized PVB resin. Given the overlap in scope, the instantly claimed invention is rendered *prima facie* obvious by the claim of the copending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicant's arguments filed December 27, 2005 have been fully considered but they are not persuasive. Applicants argue that there is no overlap between the invention of claim 14 of the co-pending application with claim 1 of instant application. However,

applicants fail to recognize that the claim 1 of instant application recites "about 30 to about 50 pph" which includes some numbers below 30.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1-5, 8, 14-19 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gutweiler (US Patent 5,573,842) in view of Dauvergne (FR Patent 2,401,941, Abstract), and further in view of Shohi et al. (EP-1036775 A1) for the reasons adequately set forth from paragraph 7 of non-final office action of July 7, 2005.

The invention of claims 1-13 relates to a ***process for preparing a low color, PVB sheet*** *comprising the steps: (I)* ***admixing polyvinyl alcohol, butyraldehyde, an acid or mixture of acids, water, and a surfactant*** *(II)* ***stabilizing the mixture*** *obtained in step (I) by (a)* ***raising*** *the pH of the mixture to* ***at least pH 10*** *(b)* ***isolating the resin*** *by draining the liquid, (c)* ***washing the resin*** *with neutral pH water; (III)* ***plasticizing the PVB resin*** *composition with from about* ***30 to about 50 pph*** *of plasticizer based on the dry weight of the PVB resin; (IV) optionally mixing (a) a PVB bleaching compound and/or (b) an antioxidant and a UV light stabilizer with the PVB resin composition; and (V)* ***extruding the PVB resin composition*** *at a temperature of from about* ***175°C to about 225°C*** *to obtain a PVB sheet having a glass transition temperature* ***(T_g) of greater than about 32°C*** *and a* ***YID of less than about 12****.*

The invention of claims 14-23 relates to a ***plasticized PVB sheet composition*** *consisting essentially of;* ***polyvinylbutyral*** *having a hydroxyl (OH) number of from about* ***15 to about 25****;* ***a plasticizer or plasticizer mixture*** *present in an amount of from about* ***30 pph to about 50 pph****, based on the dry weight of the PVB resin;* ***a surfactant****; and optionally including either (i) a PVB bleaching compound, or (ii) an antioxidant and an ultraviolet (UV) light stabilizer, or (iii) both (i) and (ii), wherein the sheet has a* ***yellowness index (YID) color of less than 12****.*

8. Claims 6-7, 9-13 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gutweiler (US Patent 5,573,842) in view of Dauvergne (FR Patent

2,401,941), and further in view of Shohi et al. (EP-1036775 A1) as applied to claims 1-2, 8 and 14-15 and 19 above, and further in view of Degeilh (US 4,696,971) for the reasons adequately set forth from paragraph 8 of non-final office action of July 7, 2005.

9. Claim 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gutweiler (US Patent 5,573,842) in view of Dauvergne (FR Patent 2,401,941), in view of Shohi et al. (EP-1036775 A1), in view of Degeilh (US 4,696,971) as applied to claims 14 and 20 above, and further in view of an online product brochure from Great Lakes Chemical Corporation, www.pa.greatlakes.com, 3rd Edition, October 2001 for the reasons adequately set forth from paragraph 9 of non-final office action of July 7, 2005.

Applicant's arguments filed December 27, 2005 have been fully considered but they are not persuasive. Applicants argue that the YID of Gutweiler is inaccurate because Gutweiler involves using an optical brightener to reduce the appearance of yellow in a PVB sheet, and also argue that optical brightener does not actually reduce yellowness. However, the examiner disagrees because the YID of Gutweiler is obtained through a standardized scientific method, ASTM-D-1925 (col. 5, line 16-54).

Regarding applicants' argument that the surfactant/bleaching compounds as claimed is responsible for the YID reduction, applicants fail to recognize that the claims as written do not require the YID reduction to be a result from the claimed

surfactant/bleaching compounds. Therefore, the argument filed is not supported by the claims.

Regarding applicants' argument that the claimed invention does not require the presence of vinyl alcohol monomer, the argument is not supported by the claims as written.

Regarding applicants' argument that the teachings in prior art Gutweiler and Shohi should not be combined for the rejection set forth because the prior art Gutweiler and Shohi do not share a common goal, applicants fail to recognize that the prior art of Gutweiler and Shohi are related to each other because they share the same field of PVB technologies.

Conclusion

10. **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K. Cheung whose telephone number is (571) 272-1097. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David WU can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

William K. Cheung, Ph. D.

Primary Examiner

February 21, 2006

WILLIAM K. CHEUNG
PRIMARY EXAMINER